

V.3.3-RES-SNGL-SPEC-SETQ SINGLE RESERVOIR REGULATION OPERATION
SCHEME PRESCRIBED DISCHARGE

Purpose

Scheme SETQ sets the period ending discharge as a constant value or a value in a time series. The discharge can be either an instantaneous or a mean value.

Except for the possibility of missing time series value this Scheme handles computations identically for setting period ending non-prescribed type of discharge, storage contents and pool elevation.

If the prescribed discharge is a mean value the period ending instantaneous discharge is set equal to the mean. The continuity equation is used to compute the storage contents at the end of the period. The elevation is picked off the elevation versus storage curve at the computed storage contents.

If the prescribed discharge is an instantaneous value the period mean discharge is computed by averaging the beginning and ending discharge. The storage contents and elevation are determined the same way as for mean prescribed discharges.

If the prescribed discharge is contained within a time series an option must be specified for action to be taken when missing values are encountered. This can either be to pass the inflow or to repeat a specified number of past discharges.

Input Summary

<u>Keyword</u>	<u>Definition and Format</u>
SETQ	Input opening keyword for scheme
<u>PARMS</u>	Parameter opening keyword for scheme
QVALUE	Prescribed discharge: If discharge specified numerically then format is: - QVALUE 'value' [MEAN or INST] - 'value' is real, positive number - MEAN indicates a mean discharge value - INST indicates an instantaneous discharge value - default is MEAN If discharge specified by a time series then format is: - QVALUE TS
[OPTION]	Indicator of action to be taken if missing values are encountered in time series: - needed only if 'QVALUE TS' entered - integer value

<u>Keyword</u>	<u>Definition and Format</u>
	<ul style="list-style-type: none"> - if value = 0 then pass inflow - if value = n then repeat last 'n' values - default is 0
<u>ENDPARMS</u>	Parameter ending keyword for scheme
[<u>TIME-SERIES</u>] <u>1/</u>	Time series opening keyword for scheme: S needed only if any time series are entered
[<u>SQTS</u>]	Discharge time series: <ul style="list-style-type: none"> - needed only if 'QVALUE TS' was entered - data time interval = multiple of Operation data time interval - dimensions = L3 or L3/T - units = CMSD or CMS - missing values are allowed
[<u>ENDTS</u>]	Time series ending keyword for scheme: <ul style="list-style-type: none"> - only needed if TIME-SERIES was entered
[<u>CARRYOVER</u>]	Carryover opening keyword for scheme: <ul style="list-style-type: none"> - only needed if carryover is entered
[<u>OLDQ</u>]	'n' values of discharge: <ul style="list-style-type: none"> - needed only if 'OPTION n' was entered - real, positive values
[<u>ENDCO</u>]	Carryover ending keyword for scheme: <ul style="list-style-type: none"> - needed only if CARRYOVER was entered
<u>ENDSETQ</u>	Input ending keyword for scheme

Notes:

1/ See 'Time Series Definition' in Section V.3.3-RES-SNGL-SPEC.